

ThermoFisher S C I E N T I F I C Service and Support		<h1>Service Bulletin</h1>	
Product Line: Molecular Biology	Bulletin Number: 0708-MB-AVL-0045	Issue Date: 28/08/07	Page Number: Page 1 of 6
Model(s): HBPX2 ALL			

Title: User programs disappear after power down

Subject: Release of new spare part (Battery Module) to resolve loss of user programs

Description: The HBPX Thermal Cyclers contain a socket mounted battery module used to power the SRAM that stores the users programs. The lithium energy source in the module is not rechargeable. The battery provides back-up power after the first time the PCB in the PX2 system is powered-up and then down. The battery is providing back-up power through the manufacturing, shipping, warehousing and distribution cycles. The battery is also discharging when ever the customer powers down the PX2. The current process is to change the PCB (P/N PCYL237).

Models Affected: All HBPX2 Thermal Cyclers.

Production Range: All

Resolution: A new spare part is being released to allow for the replacement of the socket mounted module as an alternative repair. **The new P/N will be T00124** and can be ordered from Asheville

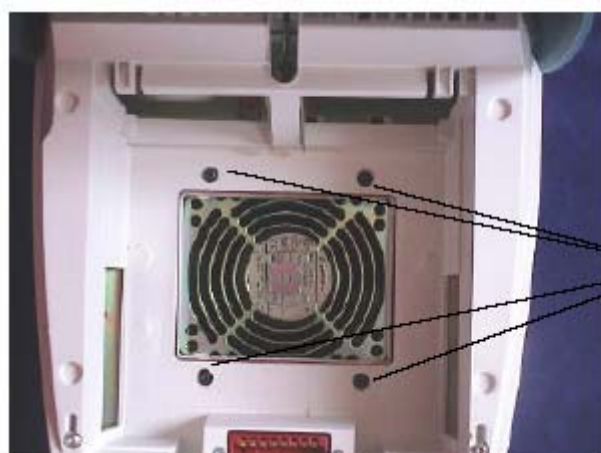
AUTHOR:	CONTACT INFORMATION:	REVIEWED BY:
Mark Snow	800-843-1113	Gary Mello

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Additional Information: To replace the module follow the steps below (Wear a ground strap):

Power off the unit and disconnect power cord.

Opening the Unit: Open the Lid by rotating the knob on the top. Remove the interchangeable block assembly and put it to one side. Unscrew the four M4 x 12 Hex button head screws around the fan duct using a 2.5mm hex driver



Fixing Screws
M4 x 12mm, 4 off

Using a 3mm A/F hex driver remove the two black M4 x 16 hex cap head screws located at the top of the blue moulding towards the rear of the machine,

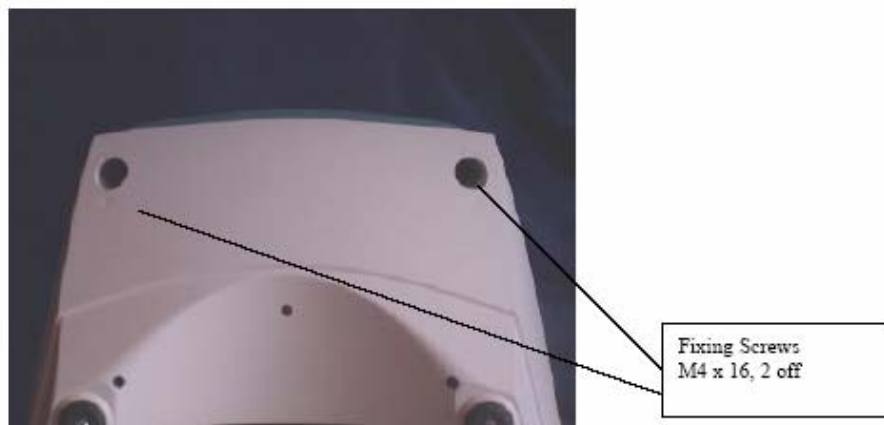


Fixing Screws
M4 x 16mm, 2 off

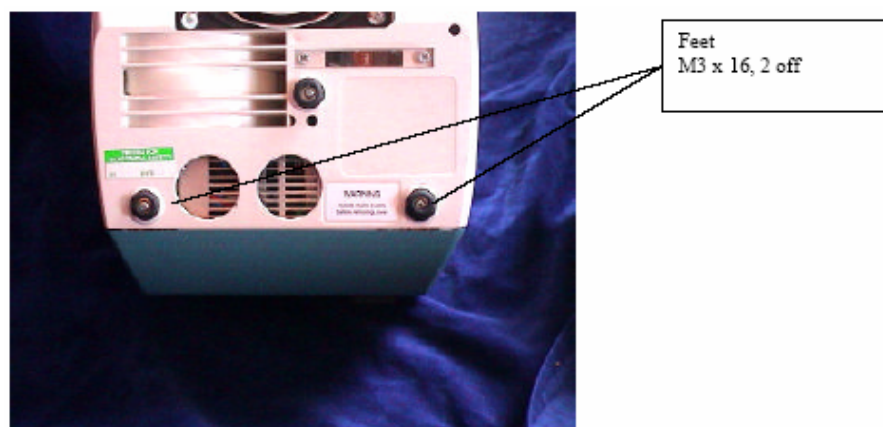
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Carefully turn the unit upside down. Using a 3mm hex driver remove the two black M4 x 16 hex cap head screws located towards the front of the machine,



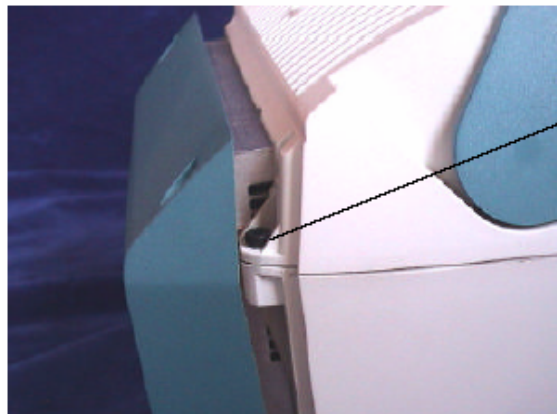
Using a Philips screwdriver, remove the two screws that pass through the two rear feet, and remove the rear feet,



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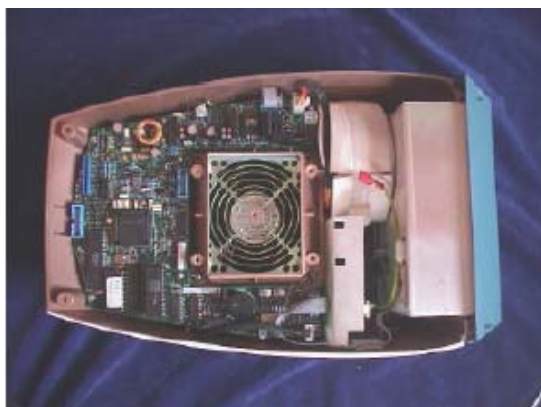
Carefully turn the unit the right way up. Slide out the Peltier PSU a small distance to give access to the rear chassis clamping screws and remove them using a 3mm hex driver.



Rear Chassis
Clamping Screw
(same other side)
M4 x 16mm, 2 off

Lift the top moulding away from the base moulding, taking care not to damage the electrical connections that join the two. To completely separate the two halves you must disconnect:

- The heated lid from CON7 on the control PCB.
- The block signal cable from CON3 on the control PCB.
- The block power cables from Peltier PSU.
- The display/keypad module from CON10 on the control PCB.
- The block sensor micro switch from CON9 on the control PCB.
- Earth Wire from the baffle plate.
- The Top moulding, may now be lifted completely away from the base,



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Remove the main PCB from the unit:

Unplug the following wires:

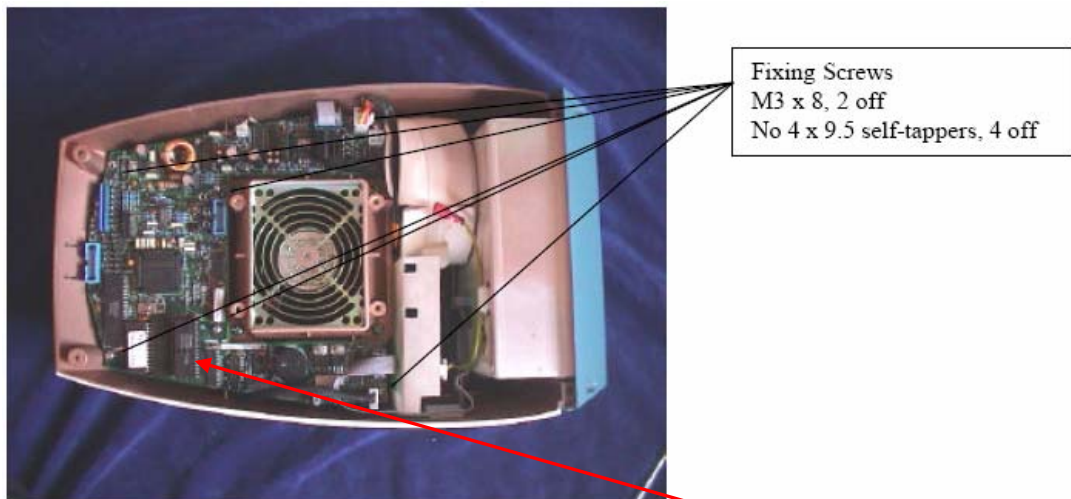
The transformer from CON6 on the control PCB.

The communications connector from CON11 on the control PCB.

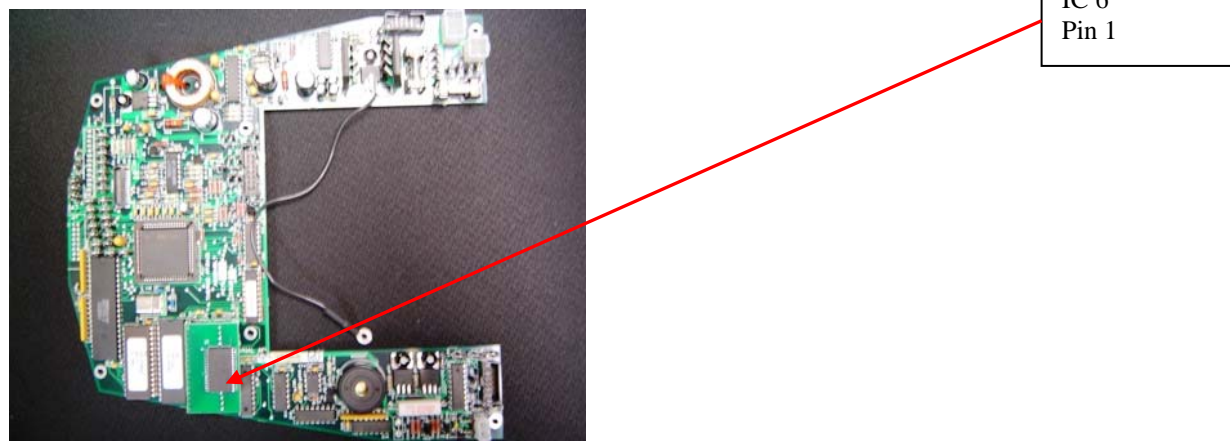
The fan from CON4 on the control PCB.

The 10 way IDC from the Peltier PSU from CON5 on the control PCB.

Locate and remove the six fixing screws for the control PCB,



Remove the PCB from the chassis and locate device IC6



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Carefully remove the top device in the stack. Noting the orientation of pin 1



SRam removed

Using a small flat blade, carefully insert between the socket and the module, pry the module up and remove.



Module removed

Install new module, reverse the steps above to re-assemble.

Follow the instructions on page 19 of the User Manual to set the Date and Time as needed.

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